

## **REMARKS**

Claims 1-8 were pending in this application. New claims 10-22 were added by this amendment. Independent claims 1 and 6 have been amended to clarify the invention. Specifically, the preambles of these claims have been amended to better define the context of the claimed methods without narrowing their scope. Further, claims 1 and 6 have been amended to recite the use of an oxygen source “comprising at least one of a carbon oxide, methanol, and water.” This amendment finds support at, for example, page 6, paragraph [0024].

New claims 10-22 recite silicon precursors and/or ratios of oxygen sources to silicon sources used to form anti-reflective layers. These claims find support at, for example, page 6, paragraph [0023] and page 8, paragraph [0035].

### **Rejections Under 35 U.S.C § 103**

Claims 1-4 and 6-8 are rejected under 35 U.S.C 103(a) as being obvious over US Patent No. 6,635,583 to Bencher et al. (“Bencher”) in view of U.S. Patent No. 6,316,167 to Angelopoulos et al (“Angelopoulos”). Claim 5 is rejected as being obvious over Bencher in view of Angelopoulos and further in view of U.S. Patent No. 6,147,009 to Grill et al.

In response to the first action in this case, Applicants explained why the then pending claims were patentable over the cited art. The Examiner did not accept this explanation and issued a final action. Applicants maintain their position that there is legally insufficient motivation in the cited art to support a section 103 rejection. Applicants further maintain that the cited references do not teach an anti-reflective layer that is substantially nitrogen-free and produced in the claimed manner. However, to move prosecution forward, Applicants have amended independent claims 1 and 6 to recite that the substantially nitrogen-free anti-reflective layer is formed “using an oxygen source comprising at least one of a carbon oxide, methanol, and water.”

This claim feature is certainly not disclosed in Bencher, which describes methods of forming a silicon carbide layer (i.e., a layer that does not contain oxygen). Further, this feature is

not disclosed in Angelopoulos, which identifies oxygen and nitrous oxide as oxygen containing precursors, but not carbon oxides, methanol, or water. Obviously, Angelopoulos' nitrous oxide would be incompatible with the claimed invention. Further, the elemental oxygen listed by Angelopoulos does not contain additional precursor elements that would be needed for the film (e.g., carbon and/or hydrogen).

In view of this, it is respectfully submitted that claims 1 and 6 and their dependent claims (2-5, 7, 8, and 10-19) are non-obvious and patentable over the cited art. Withdrawal of the rejections under 35 U.S.C. 103(a) is therefore respectfully requested.

New claims 12-14 and 17-22 recite methods in which a ratio of an oxygen source to a source of silicon precursor is within a particular range. Applicants wish to point out that Angelopoulos' example ranges are well outside Applicants' claimed ranges. For example, while the claims recite ranges of about 5:1 to about 100:1 oxygen source to silicon source, Angelopoulos presents much more oxygen-starved ranges, e.g., less than 1:1 oxygen source to silicon source. See e.g., columns 8 and 9 of Angelopoulos. Of course, Bencher is not relevant as it does not employ an oxygen source.

Thus, it is respectfully submitted that regardless of whether claims 1-8, 9-11, and 15-16 are deemed patentable, claims 12-14 and 17-22 are independently patentable.

Conclusion:

In light of the foregoing amendments and remarks, Applicants respectfully submit that all pending claims are now in condition for allowance. Thus, Applicants respectfully request a Notice of Allowance from the Examiner. Should any unresolved issues remain, the Examiner is encouraged to contact the undersigned at the telephone number provided below. No fees appear to be necessary for this Amendment. However, if the Commissioner determines that any fee is due, such fee may be charged to deposit account No. 500388 (Order No. NOVLP037C1).

Respectfully submitted,

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